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recording magnetic pole is maximum, the length of the projection of said recording magnetic pole onto the magnetic disk surface as measured along the radial direction of said magnetic disk is not more than the track pitch of saidd magnetic disk, wherein the shape of said recording magnetic pole as viewed from a sliding surface of said magnetic disk comprises a first side intersecting said faced portions, a second side faced to said magnetic gap or on the opposite side of said magnetic gap, and a third side intersecting said first and second sides.

A1

2. (Amended) A magnetic disk apparatus comprising a magnetic head, and a rotated magnetic disk, wherein said magnetic head comprises a first magnetic pole and a recording magnetic pole, said first and recording magnetic poles have faced portions forming a recording gap therebetween, and the shape of projection of said recording magnetic pole onto said magnetic disk comprises a first side intersecting said faced portions, a second side faced to said magnetic gap or on the opposite side of said magnetic gap, and a third side intersecting said first and second sides, the length of the projection of said recording magnetic pole onto the magnetic disk surface as measured along the radial direction of said magnetic disk is not more than the track pitch of said magnetic disk.

A2

4. (Amended) A magnetic disk apparatus as set forth in claim 3, wherein said magnetic head comprises a first magnetic pole and a recording magnetic pole, and, at a position on said magnetic disk where the angle S between the rotating direction of said magnetic disk and the film thickness direction of said recording magnetic pole is maximum, the sum Px sin(S) and Wx cos(S) is not more than the track pitch of said magnetic disk, where P is the film thickness of said recording magnetic pole and W is the width of said second magnetic pole.

A3

8. (Amended) A magnetic disk apparatus as set forth in claim 1, wherein said third side is disposed on the downstream side with respect to the moving direction of said magnetic head and wherein said magnetic disk apparatus is a longitudinal magnetic recording apparatus.

9. (Amended) A magnetic disk apparatus as set forth in claim 1, wherein said third side is disposed on the upstream side with respect to the moving direction of said magnetic head and wherein said magnetic disk apparatus is a perpendicular magnetic recording apparatus.

10. (Amended) A magnetic disk apparatus comprising a magnetic head formed by stacking thin films, and a rotated magnetic disk, wherein said magnetic head comprises a first magnetic pole and a recording magnetic pole, and, at a position on said magnetic disk where the angle S between the rotating direction of said magnetic disk and the film thickness direction of said recording magnetic pole is maximum, the length of an overlapped area of the projection of said second magnetic pole onto the magnetic disk surface and track width of said magnetic disk is not more than 5% of said track width.

Please add new claims 12-15 as follows:

12. (NEW) A magnetic disk apparatus as set forth in claim 2, wherein said third side is disposed on the downstream side with respect to the moving direction of said magnetic head and wherein said magnetic disk apparatus is a longitudinal magnetic recording apparatus.

13. (NEW) A magnetic disk apparatus as set forth in claim 3, wherein said third side is disposed on the downstream side with respect to the moving direction of said magnetic head and wherein said magnetic disk apparatus is a longitudinal magnetic recording apparatus.

14. (NEW) A magnetic disk apparatus as set forth in claim 2, wherein said third side is disposed on the upstream side with respect to the moving direction of said magnetic head and wherein said magnetic disk apparatus is a perpendicular magnetic recording apparatus.

15. (NEW) A magnetic disk apparatus as set forth in claim 3, wherein said third side is